

## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

### Listing of Claims:

- 1           1.       (Currently Amended) A method for generating spatialized audio  
2       from non-three-dimensionally aware applications, comprising:  
3           ~~intercepting parameters associated with audio use from an intercepting a~~  
4       ~~call to generate audio to a non-three-dimensional audio API from a non-three-~~  
5       ~~dimensionally aware application, wherein the application does not include support~~  
6       ~~for three-dimensional sound;~~  
7           ~~using the intercepted parameters to obtain obtaining~~ location information  
8       of a display window associated with the application within a three-dimensional  
9       display;  
10       calculating an audio source location for the audio from the application in a  
11       three-dimensional sound space, wherein the audio source location is associated  
12       with a location of the display window in the three-dimensional display; and  
13       ~~positioning the audio at the audio source location using the call to the non-~~  
14       ~~three-dimensional audio API and the calculated audio source location in a three-~~  
15       ~~dimensional sound system to position audio from the application in a three-~~  
16       ~~dimensional sound space, wherein the audio source location is associated with a~~  
17       ~~location of the display window in the three-dimensional display.~~  
  
1           2.       (Original) The method of claim 1, wherein intercepting  
2       information about audio use involves intercepting an audio stream from the  
3       application.

1           3.     (Original) The method of claim 1, wherein intercepting  
2 information about audio use involves intercepting parameters associated with an  
3 audio stream from the application.

1           4.     (Original) The method of claim 1, wherein obtaining location  
2 information of the display window associated with the application involves  
3 determining a set of coordinates on the three-dimensional display where the  
4 display window is located.

1           5.     (Original) The method of claim 1, wherein calculating the audio  
2 source location involves using the location of the display window to calculate  
3 coordinates for the audio source location so that audio from the audio source  
4 location appears to originate at the location of the display window.

1           6-8.   (Cancelled)

1           9.     (Original) The method of claim 1, further comprising reducing  
2 audio volume of other applications when a given application is issuing a request  
3 for a warning tone, wherein reducing audio volume of other applications causes  
4 the warning tone from the given application to be predominant.

1           10.    (Original) The method of claim 1, wherein when a given  
2 application is issuing a request for user attention or the three-dimensional window  
3 manager decides to get the user's attention to a certain application running in the  
4 three-dimensional window, the method further comprises applying spatial audio  
5 effects to the audio that the application is generating, wherein the spatial effects

6 include panning the audio source location in the three-dimensional space left and  
7 right repeatedly and rapidly.

1 11. (Currently Amended) A computer-readable storage medium storing  
2 instructions that when executed by a computer cause the computer to perform a  
3 method for generating spatialized audio from non-three-dimensionally aware  
4 applications, the method comprising:

5 ~~intercepting parameters associated with audio use from an intercepting a~~  
6 ~~call to generate audio to a non-three-dimensional audio API from a non-three-~~  
7 ~~dimensionally aware application, wherein the application does not include support~~  
8 ~~for three-dimensional sound;~~

9 ~~using the intercepted parameters to obtain obtaining~~ location information  
10 of a display window associated with the application within a three-dimensional  
11 display;

12 ~~calculating an audio source location for the audio from the application in a~~  
13 ~~three-dimensional sound space, wherein the audio source location is associated~~  
14 ~~with a location of the display window in the three-dimensional display; and~~

15 ~~positioning the audio at the audio source location using the call to the non-~~  
16 ~~three-dimensional audio API and the calculated audio source location in a three-~~  
17 ~~dimensional sound system to position audio from the application in a three-~~  
18 ~~dimensional sound space, wherein the audio source location is associated with a~~  
19 ~~location of the display window in the three-dimensional display.~~

1 12. (Original) The computer-readable storage medium of claim 11,  
2 wherein intercepting information about audio use involves intercepting an audio  
3 stream from the application.

1           13.     (Original) The computer-readable storage medium of claim 11,  
2     wherein intercepting parameters associated with audio use involves intercepting  
3     information about an audio stream from the application.

1           14.     (Original) The computer-readable storage medium of claim 11,  
2     wherein obtaining location information of the display window associated with the  
3     application involves determining a set of coordinates on the three-dimensional  
4     display where the display window is located.

1           15.     (Original) The computer-readable storage medium of claim 11,  
2     wherein calculating the audio source location involves using the location of the  
3     display window to calculate coordinates for the audio source location so that  
4     audio from the audio source location appears to originate at the location of the  
5     display window.

1           16-18. (Cancelled)

1           19.     (Original) The computer-readable storage medium of claim 11, the  
2     method further comprising reducing audio volume of other applications when a  
3     given application is issuing a request for a warning tone, wherein reducing audio  
4     volume of other applications causes the warning tone from the given application  
5     to be predominant.

1           20.     (Original) The computer-readable storage medium of claim 11,  
2     wherein when a given application is issuing a request for user attention or the  
3     three-dimensional window manager decides to get the user's attention to a certain  
4     application running in the three-dimensional window, the method further  
5     comprises applying spatial audio effects to the audio that the application is

6 generating, wherein the spatial effects include panning the audio source location  
7 in the three-dimensional space left and right repeatedly and rapidly..

1 21. (Currently Amended) An apparatus for generating spatialized audio  
2 from non-three-dimensionally aware applications, comprising:

3 an intercepting mechanism configured to intercept ~~parameters associated~~  
4 ~~with audio use from an a call to generate audio to a non-three-dimensional audio~~  
5 API from a non-three-dimensionally aware application, wherein the application  
6 does not include support for three-dimensional sound;

7 a location-obtaining mechanism configured to ~~use the intercepted~~  
8 ~~parameters to~~ obtain location information of a display window associated with the  
9 application within a three-dimensional display;

10 a calculating mechanism configured to calculate an audio source location  
11 for the audio from the application in a three-dimensional sound space, wherein the  
12 audio source location is associated with a location of the display window in the  
13 three-dimensional display; and

14 a positioning a three-dimensional sound mechanism configured to position  
15 the audio at the audio source location-use the call to the non-three-dimensional  
16 audio API and the calculated audio source location in a three-dimensional sound  
17 system to position audio from the application in a three-dimensional sound space;  
18 wherein the audio source location is associated with a location of the display  
19 window in the three-dimensional display.

1 22. (Original) The apparatus of claim 21, wherein intercepting  
2 information about audio use involves intercepting an audio stream from the  
3 application.

1           23.     (Original) The apparatus of claim 21, wherein intercepting  
2 information about audio use involves intercepting parameters associated with an  
3 audio stream from the application.

1           24.     (Original) The apparatus of claim 21, wherein obtaining location  
2 information of the display window associated with the application involves  
3 determining a set of coordinates on the three-dimensional display where the  
4 display window is located.

1           25.     (Original) The apparatus of claim 21, wherein calculating the audio  
2 source location involves using the location of the display window to calculate  
3 coordinates for the audio source location so that audio from the audio source  
4 location appears to originate at the location of the display window.

1           26-28. (Cancelled)

1           29.     (Original) The apparatus of claim 21, further comprising an  
2 volume reducing mechanism configured to reduce the audio volume of other  
3 applications when a given application is issuing a request for a warning tone,  
4 wherein reducing audio volume of other applications causes the warning tone  
5 from the given application to be predominant.

1           30.     (Original) The apparatus of claim 21, wherein the positioning  
2 mechanism is further configured to apply spatial audio effects to the audio that the  
3 application is generating when a given application is issuing a request for user  
4 attention or the three-dimensional window manager decides to get the user's  
5 attention to a certain application running in the three-dimensional window,

- 6 wherein the spatial effects include panning the audio source location in the three-  
7 dimensional space left and right repeatedly and rapidly.